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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/884,828	06/18/2001	Pierre P. Repper	932-CAL	2484
26542	7590	04/07/2006	EXAMINER	
JAMES MARC LEAS 37 BUTLER DRIVE S. BURLINGTON, VT 05403			PRICE, CARL D	
			ART UNIT	PAPER NUMBER
			3749	
DATE MAILED: 04/07/2006				

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>		<b>Applicant(s)</b>	
	09/884,828		REPPER ET AL.	
	<b>Examiner</b>		<b>Art Unit</b>	
	CARL D. PRICE		3749	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 20 January 2006.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-13, 15-17, 20-41, 43-57 and 61-85 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-13, 15-17, 20-41, 43-57 and 61-85 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

## DETAILED ACTION

### Response to Arguments

Applicant's arguments with respect to claims 1-13, 15-17, 20-41, 43-57 and 61-85 have been considered but are moot in view of the new ground(s) of rejection.

### Claims: Rejected under 35 U.S.C. 103(a)

Claims 1-13, 15-17, 20-41, 43-57 and 61-85 are rejected under 35 U.S.C. 103(a) as being unpatentable over US005241463 (Lee) (newly cited) in view of US005388984 (Meslif) (of record) or US005575638 (Witham et al) (of record).

US005241463 (Lee) shows and discloses a cooktop including:

- a gas burner (12);
- a gas valve (32);
- a user interface (13) for user entry of burner heating level for the gas burner;
- an electronic controller (fig. 4) connected to the gas valve to control gas flow to the burner;
- an igniter (37) connected to ensure ignition of gas delivered to the burner;
- a flame sensor (see column 5, lines 20-23) connected and placed to monitor for presence of a flame at the burner;
- wherein the gas valve is controlled using a modulated electrical signal so as to provided variable regulation of fuel flow in accordance with the user entry (i.e. – digital keys) and wherein the gas valve includes a mechanism to operate a mode having continuous flame modulated to predetermined lower “minimum” or lower first heating level and a predetermined higher or “maximum” second heating level.

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**US005241463 (Lee)** shows and discloses the invention substantially as set forth in the claims with possible exception to:

- the second mode providing intermittent flame for producing heating levels less than the lower or minimum first heating level for simmering operation,

**US005388984 (Meslif)** teaches, from applicant's same gas burner regulation field of endeavor, controlling a cooking or heating appliance a dual function gas valve using a "pulse-width modulated electrical signal" so as to provide a constant high (100%) and lower variable regulation of fuel flow (0-100%) in accordance with the user entry (i.e. – digital keys). including:

- a gas burner;
- a dual function gas valve;
- a user interface (e.g. – "digital keys", "slide runners", "potentiometers", etc.) for user entry of burner heating level for the gas burner;
- an electronic controller (70, 80, 70a, R) connected to the dual function gas valve to control gas flow to the burner;
- wherein the dual function gas valve includes a first mechanism to operate a first electronically controlled mode and a second mechanism to operate a second electronically controlled mode:
  - o the first mode having continuous flame modulated high predetermined high heating level (i.e. – "between a position opening and a position closing said passageway, characterized in that the frequency of the displacements towards one of the positions of the valve is constant whereas the period of holding the valve in the other position varies as a function of the flow rate to be obtained."); and
  - o the second mode providing intermittent flame for producing lower (i.e. – "between a position opening and a position closing said passageway, characterized in that the frequency of the displacements towards one of

the positions of the valve is constant **whereas the period of holding the valve in the other position varies as a function of the flow rate to be obtained.**”).

**US005575638 (Witham et al)** teaches, form applicant's same gas burner regulation field of endeavor, controlling a plurality of gas burners using dual function gas control valves including:

- a user interface (24, 26, 28, 30) for user entry of burner heating level for each of the plural gas burners;
- a controller (38) operative to control each of the plural gas valves;
- plural igniters (53), each of the igniters being connected to ensure ignition of the gas delivered to its respective gas burner;
- temperature sensors, each of the sensors connected and placed to monitor the presence of flames at each of the respective burners;
  - o the cooktop being characterized in being adapted to operate alternatively in either of first and second modes:
    - the first mode having continuous flame modulation varying continuously between predetermined lower first and higher second heating levels; and
    - the second mode having intermittent flame for producing heating levels less than the lower first heating level for simmering operation, the intermittent flame being controlled between on and off states by the gas valves;
    - the gas valves being controlled by a pulse-width modulated electrical signal (see column 3, line 15; “burners include pulse sequence control”) provided by the controller in accordance with the user entry.

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With regard to the burner mode operation, **US005575638 (Witham et al)** discloses the following:

(See column 4, line 65 –column5, line14)

In addition, while the rotation of the stem 100 operates the rotor 114 for corresponding electrical signaling of the position of the actuator through the prong 132 to the conductor for signal 60, the stem 100 also controls the position of the valve so as to open the valve fully at about a 90.degree. position from the fully clockwise rotational position. As the stem 100 is further rotated from about 90.degree. to about 210.degree., as designated by the range 94 in FIG. 2, the flow of gas through the valve decreases substantially linearly as the flow rate changes over the rotational positions. At about 210.degree., the actuator approaches range 96 at which the flow rate remains relatively constant at about 1/6 the maximum flow rate through the valve. Within the range 96, the flow of gas to the burner is governed solely by the solenoid valve 144 in response to the control signal 62 generated by control unit 42. The control signal 62 sent to the solenoid is likewise dependent upon the signal received from the potentiometer from signal conductor 60.

In regard to claims **1-13, 15-17, 20-41, 43-57 and 61-85**, for producing heating levels less than the lower or minimum first heating level for operating the burner during very low heating values such as during a simmering operation, it would have been obvious to a person having ordinary skill in the art to modify the valve of **US005241463 (Lee)** to include means operating a second mode the second mode providing intermittent flame, in view of the teaching of either **US005388984 (Meslif)** or **US005575638 (Witham et al)**.

In regard to, for example, claims **10, 11, 21, 22, 23, 54, 55, 57, 84 and 85**, **US005241463 (Lee)** discloses use “bar-type” visual display indicator devices to alert a user and/or technician of burner and/or burner control conditions. With regard to claims **12, 24, 27 and 44**, in particular, Official Notice is taken that it is well known to use resistive hot surface igniters to initiate combustion of fuel-air mixtures. Thus, in view of that which is well known and for the known purpose of achieving the same purpose of initiate combustion of fuel-air mixtures, it would have

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been obvious to a person having ordinary skill in the art to modify the igniter of **US005241463 (Lee)** to be of the resistive hot surface igniter type.

### **Conclusion**

See the attached USPTO form 892 for prior art made of record and not relied upon which is considered pertinent to applicant's disclosure.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

### **USPTO CUSTOMER CONTACT INFORMATION**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **CARL D. PRICE** whose telephone number is (571) 272-4880. The examiner can normally be reached on Monday through Friday between 6:30am-3:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ehud Gartenberg can be reached on (571) 272-4828. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read 'Carl D. Price', with a stylized, flowing script.

CARL D. PRICE  
Primary Examiner  
Art Unit 3749

cp